

## **Homework 7 Report**

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**Academic Integrity Statement:** I pledge that I have neither given nor received unauthorized help on this programming assignment.

### **Problem Statement:**

The goal of this assignment was to better understand Abstract Data Types (ADT) by developing a Matrix class. The program does not take in any inputs and will output the default constructor, nondefault constructor, and the matrix when used in the other methods of the class. Since the user does not input anything there is no need for error handling.

### **Design:**

This assignment was more meant to help in understanding ADT's then how to build one from scratch. The main program and methods were provided for us so all that was needed to be done is fill in the methods for the Matrix class. Each method was separated by what they did in the file provided so that's how they were separated when the methods were designed. Some pros of this design is that methods match up with the way they are listed in the class and some cons are that not a lot of space was put between each of the different types of methods.

### **Implementation:**

Since the main program and the interface specifications of the Matrix class were provided all that was needed was to implement each method in the Matrix class. There are a total of 21 methods in the Matrix class including two operator methods that were provided that are public and there are three private variables. This assignment took the full two weeks to develop

### **Testing:**

Since the main program was provided for us and because of how close this is to the due date, not testing was done aside from what was already in the main program provided. There are no inputs for this program and no special cases could be tested. The only problem with the program is that there is what I can only assume is a segmentation fault somewhere.

### **Conclusions:**

Despite completing this program at the nth hour and it being incomplete I would not label this program as a complete failure. There is what I am assuming is a segmentation fault somewhere in the program. If this were to be done over again I would make sure I don't have any family staying over for a week and distract me from completing this assignment. This assignment took the full two weeks to complete.